

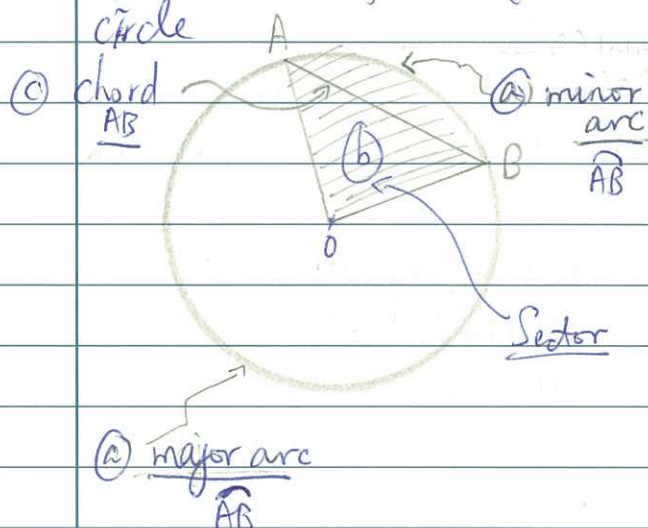
## Review Set 18A

\* Use  $\pi$  as 3.14 or  $\frac{22}{7}$   
 or use the calculator  
 will give different answer

1a. An arc is part of the circumference of a circle  
 2

b. A sector of a circle is the area formed by two radii of the same circle.  
 2

c. A chord of a circle is a line segment join any two points of the circumference of a circle  
 2



3. The length of tubing needed:

$$= 2\pi r$$

$$= 2 \times 3.14 \times 40 \text{ cm}$$

$$= 251.3 \text{ cm} / 251.2 \text{ cm} (251 \text{ cm})$$

4. Find d when  $C = 30 \text{ cm}$

$$C = \pi d$$

$$\therefore d = C \div \pi$$

$$d = 30 \text{ cm} \div \pi$$

$$d = 9.5 \text{ cm} / 9.6 \text{ cm} (9.55 \text{ cm})$$

5. The radius of the trail:

$$= \frac{C}{2\pi} = \frac{500 \text{ m}}{2\pi} = 79.6 \text{ m}$$

$$\text{or } (79.6 \text{ m})$$

2a. Circumference of a circle with diameter as 6 m:

$$2\pi r = \pi D = 3.14 \times 6$$

$$= 18.8 \text{ m}$$

$$\text{or } 18.84 \text{ m} \text{ or } 18.85 \text{ m}$$

$$6a. \text{ Area} = \pi r^2 = \pi (2)(2) = (12.6 \text{ m}^2) (12.56 \text{ m}^2)$$

$$b) \text{ Area} = \pi r^2 = \pi (7.5)(7.5) = 176.7 \text{ cm}^2$$

$$(177 \text{ cm}^2) (176.5 \text{ cm}^2 / 176.65 \text{ cm}^2)$$

$$c) \text{ Area} = \pi r^2 = \pi \left(\frac{10}{2}\right)\left(\frac{10}{2}\right) = 78.5 \text{ m}^2 (78.5 \text{ m}^2)$$

2b. Circumference of a circle with radius 8 cm

$$2\pi r = 2\pi \times 8 \text{ cm}$$

$$= 50.24 \text{ cm} / 50.3 \text{ cm}$$

$$\text{or } 50.27 \text{ cm}$$

7. a) The total area of the top of the pavers:

$\times$  area of one paver

$$= 8 \times \pi r^2$$

$$= 8 \times \pi (20)^2 \text{ cm}^2$$

$$= 10048 \text{ cm}^2 / 10053 \text{ cm}^2$$

$$\text{or } 1.00 \text{ m}^2 / (1.01 \text{ m}^2)$$

b) Volume of the pavers

$$= 1.01 \text{ m}^2 \times 0.05 \text{ m}$$

$$= 0.0505 \text{ m}^3$$

$$\text{or } 10053 \text{ cm}^2 \times 5 \text{ cm}$$

$$= 50265 \text{ cm}^3$$

$$\text{or } 0.053 \text{ m}^3$$

d) Vol. of a

$$= \pi r^2 h$$

$$= \pi (3)^2 \times 9$$

$$= 254.5 \text{ cm}^3$$

$$(254.3 \text{ cm}^3) \quad (254 \text{ cm}^3)$$

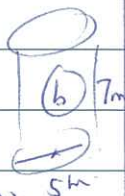


Vol. of b

$$= \pi r^2 h$$

$$= \pi \left(\frac{5}{2}\right)^2 (7)$$

$$= 137.4 \text{ cm}^3 \quad (137 \text{ cm}^3)$$



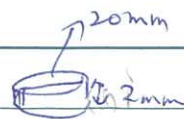
9) Volume of the coin:

$$\pi r^2 h$$

$$= \pi \left(\frac{20}{2}\right)^2 \times 2 \text{ mm}^3$$

$$= 200 \pi \text{ mm}^3$$

$$= 628.3 \text{ mm}^3 \quad (628 \text{ mm}^3)$$



10. Volume of the pot

$$= \pi r^2 h$$

$$= \pi (15)^2 \times 20 \text{ cm}^3$$

$$= 14137 \text{ cm}^3 \quad (14130 \text{ cm}^3)$$

Capacity of the pot:

$$14130 \text{ cm}^3$$

$$= 14130 \text{ mL}$$

$$= 14.13 \text{ L} \quad (14.1 \text{ L})$$